PATENT

DOCKET NO.: NNI-0005 Application No.: 10/672,833

Office Action Dated: January 25, 2008

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

 (Currently Amended) A circuit pad for reducing discomfort caused by a magnetic stimulation device, comprising:

at least one conductor located peripheral to the a magnetic stimulation d evice, wherein the conductor is adapted to reduce stimulation induced by the magnetic stimulation device.

- (Original) The circuit pad of claim 1, further comprising a circuit in communication with the conductor.
- (Original) The circuit pad of claim 1, further comprising reducing stimulation by the magnetic stimulation device at a predetermined location.
- (Original) The circuit pad of claim 3, wherein the predetermined location is determined relative to a treatment area.
- (Original) The circuit pad of claim 4, wherein the treatment area is a portion of a brain and wherein the predetermined location is a cutaneous-proximate area relative to the treatment area.
- (Original) The circuit pad of claim 1, further comprising a connector in communication with the conductor, wherein the connector provides an interface with the magnetic stimulation device.
- (Original) The circuit pad of claim 1, further comprising a disposal mechanism
 that renders the circuit pad inoperable.

DOCKET NO.: NNI-0005 Application No.: 10/672,833

Office Action Dated: January 25, 2008

- 8. (Original) The circuit pad of claim 7, wherein the disposal mechanism acts automatically upon removal from a patient.
- (Original) The circuit pad of claim 7, wherein the disposal mechanism is activated by a user of the circuit pad.
- (Original) The circuit pad of claim 7, wherein the disposal mechanism changes the physical and electrical properties of the conductor.
- (Original) The circuit pad of claim 7, wherein the disposal mechanism disconnects communication between the conductor and the circuit.
- (Original) The circuit pad of claim 7, wherein the disposal mechanism is activated after a predetermined number of uses.
- (Original) The circuit pad of claim 7, wherein the disposal mechanism permits a certain patient to use the circuit pad for a predetermined period.
- (Original) The circuit pad of claim 13, wherein the predetermined period is a function of a number of uses.
- (Original) The circuit pad of claim 13, wherein the predetermined period is a function of a number of a duration of time.
- (Original) The circuit pad of claim 7, wherein the disposal mechanism destroys the circuit pad upon removal from the patient.

Application No.: 10/672,833

Office Action Dated: January 25, 2008

 (Original) The circuit pad of claim 7, wherein the disposal mechanism is constructed of materials that cannot be sanitized

18. (Original) The circuit pad of claim 7, wherein the circuit pad is adapted to become inoperable when contacted with cleaning materials.

 (Original) The circuit pad of claim 7, wherein the circuit pad is constructed of materials that disintegrate when in contact with cleaning solutions.

 (Original) The circuit pad of claim 1, wherein the circuit pad is adapted to be attached to the patient.

 (Original) The circuit pad of claim 1, wherein the circuit pad is adapted to be attached to the magnetic stimulation device.

 (Original) The circuit pad of claim 1, wherein the circuit pad comprises an adhesive.

 (Original) The circuit pad of claim 1, wherein the conductor is a flat metallic device.

 (Original) The circuit pad of claim 23, wherein the conductor is located between two surfaces of the circuit pad.

25. (Original) The circuit pad of claim 1, wherein the conductor has an area of in the range of 1 centimeter² to 40 centimeter².

Application No.: 10/672,833

Office Action Dated: January 25, 2008

 (Original) The circuit pad of claim 1, wherein the reducing of the stimulation occurs by reducing magnetic flux density created by the magnetic stimulation device.

 (Original) The circuit pad of claim 1, wherein the reducing of the stimulation occurs by superimposing a magnetic field created by the conductors on the circuit pad and a

magnetic field created by the magnetic stimulation device.

28. (Original) The circuit pad of claim 1, wherein the conductor is provided electrical energy substantially simultaneously with electrical energy provided to the magnetic stimulation

device.

29. (Original) The circuit pad of claim 28, wherein the electrical energy provided to

the conductor and the electrical energy provided to the magnetic stimulation device are of

opposite polarity.

30. (Original) The circuit pad of claim 28, wherein the electrical energy provided to the conductor is a current that is derived from a voltage provided to the magnetic stimulation

device

31. (Original) The circuit pad of claim 1, wherein the circuit pad is adapted to receive

a conductive gel that facilitates communication between the circuit pad and a treatment area.

32. (Original) The circuit pad of claim 31, wherein the conductive gel is received by

an absorbent portion of the circuit pad.

33. (Original) The circuit pad of claim 32, wherein the absorbent portion of the

circuit pad comprises a sponge material.

Page 5 of 14

Application No.: 10/672,833

Office Action Dated: January 25, 2008

34. (Original) The circuit pad of claim 31, wherein the conductive gel is located within a plastic material on the circuit pad.

35. (Original) The circuit pad of claim 1, wherein the conductor is placed substantially orthogonal to an electric field vector created by the magnetic stimulation device.

(Original) The circuit pad of claim 1, wherein the conductor has rounded edges.

37. (Original) The circuit pad of claim 1, wherein the conductor has a high aspect ratio.

38. (Original) The circuit pad of claim 1, wherein a relatively longer dimension of the conductor is placed along a similar direction as an electric field vector induced by the magnetic stimulation device.

39. (Original) The circuit pad of claim 1, wherein the conductor is arc-shaped.

 (Original) The circuit pad of claim 1, further comprising insulating material for preventing undesired electrical conduction with the circuit pad.

41. (Original) The circuit pad of claim 1, wherein the circuit pad is constructed of a flexible material

42. (Previously Presented) The circuit pad of claim 1, wherein the circuit pad is constructed, at least in part, by materials including at least one of the following: plastic, mylar, or polyester.

Application No.: 10/672,833 Office Action Dated: January 25, 2008

43. (Original) The circuit pad of claim 1, wherein the magnetic stimulation device comprises a magnetic core that saturates at 0.5 Tesla or greater.

44. (Original) A method for treating a patient using transcutaneous magnetic

stimulation, comprising:

directing a magnetic field created by a magnetic stimulation device to a

treatment area on the patient;

applying a flexible circuit pad, wherein the flexible circuit pad comprises

at least one conductor adapted to reduce stimulation induced by the magnetic stimulation device;

and

treating the patient with the magnetic field.

45. (Original) The method of claim 44, wherein the magnetic stimulation device comprises a magnetic core that saturates at 0.5 Tesla or greater.

46. (Original) The method of claim 44, further comprising applying the flexible

circuit pad to the treatment area.

47. (Original) The method of claim 44, further comprising applying the flexible

circuit pad to the magnetic stimulation device.

48. (Original) The method of claim 44, wherein the magnetic stimulation device

comprises a magnetic core with a non-toroidal geometry.

49. (Original) The method of claim 44, wherein the conductor reduces stimulation of

a cutaneous-proximate area on the patient.

Application No.: 10/672,833

Office Action Dated: January 25, 2008

50. (Original) The method of claim 44, further comprising locating the magnetic stimulation device to the treatment area on the patient.

 (Original) The method of claim 44, further comprising applying the flexible circuit pad to the patient.

52. (Original) The method of claim 44, further comprising applying a conductive gel material between the flexible circuit pad and the patient.

 (Original) The method of claim 44, further comprising insulating the flexible circuit pad from undesired electrical conduction.

- (Original) The method of claim 44, further comprising activating a disposal mechanism that renders the flexible circuit pad inoperable.
- (Original) The method of claim 54, wherein the activating of the disposal mechanism occurs after the patient is treated with the magnetic field.
- (Original) The method of claim 54, further wherein the activating of the disposal mechanism occurs automatically upon removal from a patient.
- (Original) The method of claim 54, wherein activating of the disposal mechanism is conducted by a user of the flexible circuit pad.
- (Original) The method of claim 54, wherein the activating of the disposal mechanism comprises changing the physical and electrical properties of the conductor.

Application No.: 10/672,833

Office Action Dated: January 25, 2008

 (Original) The method of claim 54, wherein the activating of the disposal mechanism comprises disconnecting communication with the flexible circuit pad.

60. (Original) The method of claim 54, wherein the activating of the disposal

mechanism occurs after a predetermined number of uses.

61. (Original) The method of claim 44, further comprising adapting the flexible

circuit pad to be attached to the patient.

62. (Original) The method of claim 44, further comprising adapting the flexible

circuit pad to be attached to the magnetic stimulation device.

63. (Original) The method of claim 44, further comprising applying an adhesive to

the flexible circuit pad.

64. (Original) The method of claim 44, further comprising providing a conductive

gel that facilitates communication with the flexible circuit pad.

65. (Original) The method of claim 44, further comprising injecting a conductive gel

that facilitates communication with the flexible circuit pad.

66. (Previously Presented) The method of claim 44, wherein the circuit pad is

constructed, at least in part, by materials including at least one of the following: plastic, mylar, or

polyester.

67. (Original) A circuit pad for reducing discomfort caused by a magnetic

stimulation device, comprising:

Page 9 of 14

Application No.: 10/672,833

Office Action Dated: January 25, 2008

a ferrite material located peripheral to the magnetic stimulation device, wherein the ferrite material is adapted to reduce stimulation induced by the magnetic stimulation device.

- 68. (Original) The circuit pad of claim 67, further comprising a circuit in communication with the ferrite material.
- (Original) The circuit pad of claim 67, wherein the ferrite material is located between two surfaces of the circuit pad.